

# Claims

- [c1] 1. A cooling system for an interface card, wherein the interface card comprises a circuit board and a connection interface, the circuit board has a circuit carrier and the connection interface is located on one side edge of the circuit carrier, the circuit carrier furthermore has a front surface, a back surface and a lead plugging section located on one side edge of the carrier, the cooling system comprising:
- a thermal conductive housing, wherein the thermal conductive housing encloses at least a portion of the carrier but exposes the lead plugging section of the carrier, there is a space between the thermal conductive housing and the front surface of the carrier, and the thermal conductive housing has an air inlet and an air outlet linking up the space between the thermal conductive housing and the carrier;
  - an intake fan positioned over the air inlet of the thermal conductive housing; and
  - an air exhaust fan positioned over the air outlet of the thermal conductive housing.
- [c2] 2. The cooling system of claim 1, wherein the air inlet

and the air outlet are both located above the front surface of the circuit carrier.

- [c3] 3. The cooling system of claim 2, wherein the thermal conductive housing furthermore comprises an air intake guiding section and an air exhaust guiding section with the air intake guiding section set up over the air inlet and the air exhaust guiding section set up over the air outlet such that the direction of air flow into the air intake guiding section and the direction of air flow out of the air exhaust guiding section form an included angle smaller than  $180^\circ$ .
- [c4] 4. The cooling system of claim 1, wherein the system furthermore comprises a fin-type heat sink and the circuit board furthermore comprises at least an electronic device on the front surface of the circuit carrier such that the fin type heat sink is set up between the electronic device and the thermal conductive housing with the heat sink in contact with both the electronic device and the interior surface of the conductive thermal housing.
- [c5] 5. The cooling system of claim 4, wherein the system furthermore comprises a thermal conductive buffer layer set up between the thermal conductive housing and the fin type heat sink.

- [c6] 6. The cooling system of claim 4, wherein the air inlet and the air outlet are positioned over the front surface of the circuit carrier on each side of the fin type heat sink.
- [c7] 7. The cooling system of claim 1, wherein the thermal conductive housing furthermore comprises:  
a top cover covering over the front surface of the circuit carrier; and  
a back plate covering over the back surface of the circuit carrier, wherein at least a side edge of the back plate is physically connected to one of the side edges of the top cover.
- [c8] 8. The cooling system of claim 7, wherein the side edge of the back plate and the corresponding side edge of the top cover are joined together through a detachable assembly.
- [c9] 9. The cooling system of claim 7, wherein the side edge of the top cover has a latching hook and the corresponding side edge of the back plate has a groove for accommodating the latching hook.
- [c10] 10. The cooling system of claim 7, wherein one of the side edges of the top cover has a groove and the corresponding side of the back plate has a latching hook that can be latched into the groove.

[c11] 11. The cooling system of claim 7, wherein one of the side edges of the back plate has an embedding groove for accommodating one side edge of the circuit carrier.